REMARKS

This amendment is included with a request for continued prosecution and a petition for an extension of time. Attached are the fees therefore as well as fees for three additional independent claims. As understood, there is no fee for additional claims previously paid for with a request for continued prosecution (RCE) as explained in M.P.E.P. 706.07(h) III D (page 700-85 Rev. 1 Feb. 2003).

Applicant has amended the specification as indicated in a manner that is believed to improve upon the accuracy of the specification.

Applicant notes with appreciation the allowance of claims 9- 23 and the indication of patentable subject matter in claims 3-7. Claims 3-7 stand objected to as being dependent upon a rejected claim. Accordingly, claims 3-6 are rewritten in independent form as prescribed by the Examiner to thereby remove the objection thereto.

Claims 1, 2, and 8 stand rejected under 35 U.S.C. 103(a) over Casper et al. (US 5,963,608).

The Examiner agrees that the Casper reference does not show a plurality of predetermined frequencies as now claimed. However, the Office Action states that it would have been obvious at the time of the invention to modify Casper to provide this feature. Applicant respectfully disagrees because there is no apparent motivation or advantage to modify Casper in this manner. The proposed modification would require additional circuitry and/or programming with no apparent benefit. There must be a motivation to one of skill in the art to make the proposed modification to support a rejection under 35 U.S.C. 103(a). Accordingly, Applicant respectfully requests reconsideration on this basis.

However, to speed prosecution Applicant has amended claim 1 to further distinguish Casper. The amended claim highlights an additional advantage of Applicant's design, namely that Applicant's circuit does not utilize a sweep generator

MSC-22875-1 Patent Application

circuit required by Casper as described in the claim language. The absence of circuitry required by the prior art is a significant advantage. The "phase acquisition mode" of both variations of Casper in figure 1 and figure 2 require a sweep generator to perform according to the claim language (in figure 1 see item 33 and corresponding language in col. 2, lines 56-57, and in figure 2 item 71 and corresponding language in col. 6, lines 29-33). Because Casper clearly does not comply with the amended claim language, it is respectfully submitted that the rejection is traversed.

In order to support a rejection under 35 U.S.C. 103(a) all the claim limitations must be taught or suggested by the prior art. The showing must be clear and particular. See, e.g., *C.R. Bard*, 157 F.3d at 1352, 48 USPQ2s at 1232. See M.P.E.P. 2143.03. Applicant respectfully submits that because Casper does not show either of the two limitations discussed above, and does not show a motivation to provide these limitations, that the rejection is now clearly traversed.

Conclusion

It is submitted in view of these remarks that all grounds for rejection have been removed by the foregoing amendments and discussion. Reconsideration and allowance of this application are therefore earnestly solicited.

The Examiner is invited to phone Mr. James M. Cate, attorney for Applicant, 281-483-1001, if in his opinion such a phone call would serve to expedite the prosecution of subject patent application.

Respectfully submitted,

Date: 3eplenles 10, 2004

James M. Cate, Reg. No. 25,181

Attorney for Applicant

By Journes Ma Cato

NASA Johnson Space Center/HA

NASA Road One Houston, TX 77058

Telephone: 281-483-1001 or -4871

Datafax: 281-244-8452

Certificate of Mailing

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, Alexandria, P.O. Box 1450, VA.

22313-1450, on